

TRANSMITTAL LETTER
(General – Patent Pending)

Docket No.
66179-41542

In Re Application Of:
Foster et al.

Serial No.
10/620,043

Filing Date
July 15, 2003

Examiner
Cartagena, Melvin A.

Group Art Unit
3754

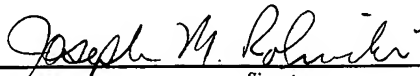
Title:
IN-LINE MANUALLY OPERATED LIQUID DISPENSER WITH SIMPLIFIED CONSTRUCTION

TO THE COMMISSIONER OF PATENTS AND TRADEMARKS

Transmitted herewith is:
Appeal Brief Under 37 CFR §41.37

in the above identified application.

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Dated: November 28, 2005

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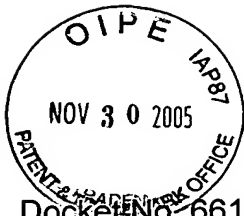
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Docket No. 66179-41542

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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In re application of: Foster, et al. :

Serial No.: 10/620,043 :

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For: IN-LINE MANUALLY OPERATED :
LIQUID DISPENSER WITH :
SIMPLIFIED CONSTRUCTION :

Examiner: CARTAGENA, Melvin A.

Group Art Unit: 3754

Mail Stop Appeal Brief
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF UNDER 37 CFR §41.37

(i) **Real Party In Interest**

The real party in interest in this Appeal is Continental AFA Dispensing Company, by way of an Assignment from the inventors. The Assignment was recorded on July 15, 2003, at Reel No. 014288 and Frame No. 0946.

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(ii) Related Appeals and Interferences

There are no related appeals or interferences.

(iii) Status of Claims

Claims 1-25 have been cancelled.

Claims 26-50 are pending in the application. Claims 26, 33-36, and 39-49 have been given a Final Rejection. Claims 27-32, 37, 38, and 50 have been objected to.

The final rejection of claims 26, 33-36, and 39-49 is appealed.

(iv) Status of Amendments

No amendments have been filed subsequent to the Final Rejection mailed on July 27, 2005.

(v) Summary of Claimed Subject Matter

Independent Claim 26

Independent claim 26 recites a manually operated liquid dispenser 10 having a pump chamber 14 with an interior volume surrounded by a cylindrical wall 26, the cylindrical wall having a center axis 28 (specification page 10, lines 4-5). A dispenser housing 12 has an interior volume 52 that contains the pump chamber cylindrical wall 26 (specification page 9, lines 17-19, and page 11, lines 10-12). The dispenser housing has a top wall 54 and a pair of side walls 56, 58 that surround the pump chamber cylindrical wall 26 with the pump chamber wall being spaced inwardly and separated from each of the dispenser housing top wall and side walls (specification page 6, lines 6-9, and page 11, lines 10-15). A pump plunger 72 is mounted to the dispenser housing for axially reciprocating movement relative to the pump chamber 14 (specification page 12, line 13-page 13, line 3). The pump plunger 72 has a liquid discharge passage 96

that communicates with the pump chamber interior volume (specification page 13, lines 17-21).

Dependent Claim 33

Claim 33 depends from claim 26 and recites the pump plunger 72 having a center tube 92 with a liquid discharge passage 96 extending through the center tube (specification page 13, lines 17-21), and a flexible, resilient bulb 120 connecting the center tube 92 to the pump chamber cylindrical wall 26 and enclosing the interior volume of the pump chamber (specification page 15, lines 3-9).

Dependent Claim 34

Claim 34 depends from claim 33 and recites the pump plunger liquid discharge passage 96 and the pump chamber cylindrical wall 26 being coaxial (specification page 13, lines 21-24).

Dependent Claim 35

Claim 35 depends from claim 33 and recites a tubular input valve 126 that is integrally formed with the bulb 120 (specification page 15, lines 10-11), and a tubular output valve 132 that is integrally formed with the bulb 120 (specification page 15, lines 23-24).

Independent Claim 36

Independent claim 36 recites a manually operated liquid dispenser 10 comprising a pump chamber 14 that has a cylindrical wall 26 that surrounds an interior volume of the pump chamber, the cylindrical wall having a center axis 28 (specification page 10, lines 4-5). A dispenser housing 12 has walls that surround an interior volume 52 that contains the pump chamber 14 (specification page 9, lines 17-19, and page 11, lines

10-12). A pump plunger 72 is mounted to the dispenser housing 12 for axially reciprocating movement of the plunger 72 relative to the pump chamber 14 (specification page 12, line 13-page 13, line 3). The pump plunger 72 has a center tube 92 with a liquid discharge passage 96 that communicates with the interior of the pump chamber 14 (specification page 13, lines 17-21). The pump plunger 72 also has a top wall 78 and a pair of side walls 74, 76 that surround the center tube 92 with the entire center tube being spaced inwardly and separated from each of the pump plunger top wall and side walls (specification page 13, lines 17-18).

Dependent Claim 39

Claim 39 depends from claim 36 and recites a flexible, resilient bulb 120 that connects the center tube 92 to the pump chamber cylindrical wall 26 and encloses the interior volume of the pump chamber (specification page 15, lines 3-9).

Dependent Claim 40

Claim 40 depends from claim 39 and recites a tubular input valve 126 that is integrally formed with the bulb 120 (specification page 15, lines 10-11), and a tubular output valve 132 that is integrally formed with the bulb 120 (specification page 15, lines 23-24).

Dependent Claim 41

Claim 41 depends from claim 40 and recites the pump plunger liquid discharge passage 96, the tubular input valve 126, the tubular output valve 132, and the pump chamber cylindrical wall 26 all being coaxial (specification page 9, lines 11-14; page 13, lines 21-24; and page 14, lines 13-16).

Dependent Claim 42

Claim 42 depends from claim 41 and recites a liquid discharge orifice 114 communicating with the liquid discharge passage 96 and being coaxial with the liquid discharge passage (specification page 14, lines 13-16).

Independent Claim 43

Claim 43 recites a manually operated liquid dispenser 10 comprising a pump chamber 14 that has an interior volume surrounded by a cylindrical wall 26, and the pump chamber cylindrical wall 26 having a center axis 28 (specification page 10, lines 4-5). A dispenser housing 12 has walls that surround an interior volume 52 of the housing that contains the pump chamber 14 (specification page 9, lines 17-19, and page 11, lines 10-12). A pump plunger 72 is mounted to the dispenser housing 12 for axially reciprocating movement of the plunger 72 relative to the pump chamber 14 (specification page 12, line 13-page 13, line 3). The pump plunger 72 has a liquid discharge passage 96 that communicates with the interior volume of the pump chamber 14 (specification page 13, lines 17-21). A flexible, resilient bulb 120 connects the pump plunger 72 to the pump chamber cylindrical wall 26 and encloses the pump chamber interior volume (specification page 15, lines 3-9). The bulb 120 has an integral tubular output valve 132 and an integral tubular input valve 126 (specification page 15, lines 10-24).

Dependent Claim 44

Claim 44 depends from claim 43 and recites the pump chamber cylindrical wall 26 having an input port 36, and the bulb tubular input valve 126 overlaying the input port (specification page 15, lines 11-12).

Dependent Claim 45

Claim 45 depends from claim 44 and recites the pump plunger 72 having a center tube 92 with a liquid discharge passage 96 (specification page 13, lines 17-21), and the bulb tubular output valve 132 engaging around the pump plunger center tube 92 (specification page 15, line 24-page 16, line 1).

Dependent Claim 46

Claim 46 depends from claim 44 and recites the pump plunger 72 having a liquid discharge orifice 114 that communicates with the liquid discharge passage 96, and the liquid discharge orifice 114 and the pump chamber cylindrical wall 26 being coaxial (specification page 14, lines 11-16).

Dependent Claim 47

Claim 47 depends from claim 43 and recites the bulb 120 having an integral vent valve 134 (specification page 16, line 7).

Dependent Claim 48

Claim 48 depends from claim 43 and recites the dispenser housing 12 having a vent port 46 (specification page 11, lines 3-9), and the bulb having an integral vent valve 134 that engages over the vent port 46 (specification page 16, lines 8-12).

Dependent Claim 49

Claim 49 depends from claim 43 and recites the dispenser housing 12 having a top wall 54 and a pair of side walls 56, 58 that surround the pump chamber 14 and the bulb 120 (specification page 6, lines 6-9 and page 11, lines 10-15), and the pump plunger 72 having a top wall 78 and a pair of side walls 74, 76 that surround the bulb

(specification page 12, lines 13-17; page 13, lines 17-18; page 15, lines 3-4 and lines 17-19).

(vi) Grounds of rejection to reviewed on Appeal

The rejection to be reviewed on appeal is the rejection of claims 26, 33-36, and 39-49 under 35 U.S.C. §102(b) as being anticipated by the disclosure of the U.S. Patent of Micallef No. 1,138,039.

(vii) Argument

Claims 26, 33-36, and 39-49 were given a final rejection under 35 U.S.C. § 102(b) as being anticipated by the disclosure of the U.S. Patent of Micallef No. 4,138,039. However, the subject matter of the invention defined by properly construing each of the rejected claims is not disclosed by the Micallef reference and therefore is not anticipated by the Micallef reference.

It is a fundamental principle of patent law that an anticipation rejection requires identify of invention.

To anticipate a claim, the reference must teach every element of the claim. MPEP § 2131

For a prior-art reference to anticipate, every element of the claimed invention must be identically shown in a single reference. In Re Bond, 910 F.2d 831, 15 U.S.P.Q. 2d 1566, 1567, 1568 (Fed. Cir. 1990).

A party asserting that a patent claim is anticipated under 35 U.S.C. § 102 "must demonstrate . . . identity of invention." Minnesota Mining and Manufacturing Co. v. Johnson & Johnson Orthopedics, Inc., 976 F.2d 1558, 24 U.S.P.Q. 2d 1321, 1326 (Fed. Cir. 1992).

"[A]ny degree of physical difference, however slight, invalidates claims of anticipation." Ultradent Products Inc. v. Life-Like Cosmetics Inc., 39 U.S.P.Q. 2d 1969 (1980) (Utah 1996).

Independent Claims 26, 36, and 43

Of the rejected claims, claims 26, 36 and 43 are independent claims. Each of these claims recites, among other novel features of the invention, “a pump chamber having an interior volume and a cylindrical wall surrounding the interior volume”.

The words of a patent claim are generally given their ordinary and customary meaning, i.e., meaning that term would have to a person of ordinary skill in the art. Phillips v. A.W.H. Corporation, 15 F.3rd 1303, 1313, 75 U.S.P.Q. 2nd 1321 (CAFC 2005). The person of ordinary skill in the art, through whose eyes the patent claim is construed, is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but also in the context of the entire patent, including the specification. *Id.*

According to the above cited patent case law, the “cylindrical wall” recited in independent claims 26, 36, and 43, by definition of the word “cylindrical,” must have the shape of a cylinder. In the context of the application specification, the pump chamber cylindrical wall 26 is a cylinder.

In contrast, the Micallef reference discloses a pump 10 having a pump chamber 18 that is surrounded by a diaphragm 24 and a base 22. Together, the diaphragm 24 and the base 22 define a sphere. The Micallef pump chamber 18 does not have an interior volume that is surrounded by a cylindrical wall, as required by claims 26, 36, and 43. Because the Micallef reference does not disclose a pump chamber having an interior volume surrounded by a cylindrical wall, the reference does not identically disclose the subject matter of claims 26, 36, and 43, and therefore does not anticipate these claims. For this reason, the rejection of claims 26, 33-36 and 39-49 should be reversed and the claims allowed.

Dependent Claim 33

Dependent claim 33 recites, among other novel features of the invention, “a flexible, resilient bulb connecting the center tube to the pump chamber cylindrical wall and enclosing the interior volume of the pump chamber”. This subject matter of the invention is not identified in the rejection of claim 33. There is nothing in the rejection of claim 33 that identifies a suggestion of the claimed subject matter in the Micallef reference. Because the Micallef reference does not identically disclose the subject matter of claim 33, the reference does not anticipate that subject matter. The rejection of claim 33 should therefore be reversed and the claim allowed.

Dependent Claim 34

Dependent claim 34 recites “the pump chamber liquid discharge passage and the pump chamber cylindrical wall being coaxial”. The rejection of the claim identifies the plunger passage 20 in the Micallef reference as the claimed discharge passage, but does not identify any cylindrical wall that is coaxial with the discharge passage as recited in claim 34. The reference fails to disclose this subject matter. Because the Micallef reference does not identically disclose the subject matter of claim 34, the rejection of the claim should be reversed and the claim allowed.

Dependent Claim 35

Dependent claim 35 recites, among other novel features of the invention, “a tubular input valve integrally formed with the bulb; and a tubular output valve integrally formed with the bulb.” The rejection of the claims interprets the diaphragm 24 as the claimed input valve. However, the diaphragm 24 is a part of the pump 10 and is not an input valve. The ball valve 26 of Micallef functions as an input valve. The interpretation of the diaphragm 24 as an input valve is incorrect because the diaphragm 24 does not

function as an input valve. In view of this, the Micallef reference fails to identically disclose the subject matter of claim 35, and the rejection of claim 35 is made in error and should be reversed and the claim allowed.

Independent Claim 36

As explained above on pages 7 and 8, independent claim 36 includes, among other novel features of the invention, “a pump chamber having an interior volume and a cylindrical wall surrounding the interior volume”. As pointed out above, the Micallef reference fails to identically disclose this subject matter of the invention. Furthermore, independent claim 36 also includes the subject matter of “the pump plunger having a center tube with a liquid discharge passage extending through the center tube and communicating with the interior volume of the pump chamber, and the pump plunger having a top wall and a pair of side walls that surround the center tube with the entire center tube being spaced inwardly and separated from each of the pump plunger top wall and side walls”. The rejection of claim 36 interprets the stem extension 42 of the Micallef reference as the claimed center tube, but fails to identify the other subject matter of claim 36. The rejection does not identify the top wall and pair of side walls that surround the center tube with the entire center tube being spaced inwardly and separated from each of the pump plunger top wall and side walls as recited in claim 36. Because the Micallef reference fails to identically disclose this subject of the invention recited in claim 36, the rejection of the claim is made in error and should be reversed and the claim allowed.

Dependent Claim 39

Dependent claim 39 recites “a flexible, resilient bulb connecting the center tube to the pump chamber cylindrical wall and enclosing the interior volume of the pump chamber.” The Micallef reference discloses a resilient diaphragm 24 that is connected to a base 22 of the pump 10 to enclose the pump chamber 18, but neither the diaphragm 24 nor the base 22 are cylindrical according to the common definition of the word “cylindrical,” and according to the manner in which the word is used in the specification. Therefore, the Micallef reference does not identically disclose the subject matter of claim 39, and the rejection of the claim is made in error and should be reversed and the claim allowed.

Dependent Claim 40

Dependent claim 40 recites “a tubular input valve integrally formed with the bulb”. As pointed out earlier, the Micallef reference discloses a ball valve 26 that is separate from the pump chamber 10 and that functions as an input valve. Because the Micallef reference does not identically disclose the subject matter of claim 40, it does not anticipate that subject matter. Therefore, the rejection of claim 40 is made in error and should be reversed and the claim allowed.

Dependent Claim 41

Dependent claim 41 recites that the pump plunger liquid discharge passage, the tubular input valve, the tubular output valve, and the pump chamber cylindrical wall are all coaxial. As set forth above, the rejection of the claim in view of the Micallef reference fails to identify the tubular input valve and the pump chamber cylindrical wall, both of which are recited in claim 41. Because the Micallef reference does not identically

disclose these features of the invention, the reference does not anticipate claim 41 and the rejection of the claim is made in error and should be reversed and the claim allowed.

Dependent Claim 42

Claim 42 depends from claim 41 and stands or falls with claim 41.

Independent Claim 43

As explained above on pages 7 and 8, independent claim 43 recites “a pump chamber having an interior volume and a cylindrical wall surrounding the interior volume.” Because the Micallef reference does not disclose the claimed cylindrical wall surrounding the interior volume of the pump chamber as explained above, the reference does not anticipate claim 43 and the rejection of the claim is made in error and should be withdrawn and the claim allowed. Furthermore, claim 43 recites “a flexible, resilient bulb connecting the pump plunger to the pump chamber cylindrical wall”. As explained earlier, the Micallef reference does not disclose this subject matter of the invention. The Micallef reference discloses a flexible diaphragm 24 connected to a pump base 22, but not to a pump chamber cylindrical wall as required by the language of the claim. The Micallef reference therefore fails to anticipate the subject matter of claim 43, and the rejection of the claim is made in error and should be reversed and the claim allowed.

Dependent Claim 44

Dependent claim 44 recites the pump chamber cylindrical wall having an input port, and the bulb's tubular input valve overlaying the input port. As explained above with regard to claim 35, the Micallef reference discloses a ball valve 26 that functions as the input valve. The reference does not disclose a tubular input valve overlaying an input port. Because the Micallef reference does not identically disclose the subject

matter of claim 44, the rejection of the claim is made in error and should be reversed and the claim allowed.

Dependent Claim 45

Dependent claim 45 stands or falls with claim 44.

Dependent Claim 46

Dependent claim 46 requires, among other novel features, “the liquid discharge orifice and the pump chamber cylindrical wall being coaxial”. As explained above with regard to claim 26, the Micallef reference fails to identically disclose a pump chamber cylindrical wall. The Micallef reference therefore fails to anticipate the subject matter of claim 46, and the rejection of the claim is made in error and should be reversed and the claim allowed.

Dependent Claim 47

Dependent claim 47 recites “the bulb having an integral vent valve”. The rejection of the claim states that the Micallef reference discloses a vent valve, but does not identify the valve in the Micallef reference. The Micallef reference fails to identically show a bulb having an integral vent valve, and therefore fails to anticipate claim 46. The rejection of the claim should be reversed and the claim allowed.

Dependent Claim 48

Dependent claim 48 also recites the bulb having an integral vent valve. As set forth above, the Micallef reference fails to identify the claimed vent valve and therefore fails to anticipate claim 48. The rejection of the claim should be reversed and the claim allowed.

Dependent Claim 49

Dependent claim 49 recites “the pump plunger having a top wall and a pair of side walls that surround the bulb.” The rejection of the claim fails to identify the top wall and pair of side walls that surround the bulb in the Micallef reference. The Micallef reference fails to identify the subject matter of claim 49, and therefore does not anticipate that subject matter. The rejection of the claim is therefore made in error and should be reversed and the claim allowed.

For the reasons set forth above, it is respectfully submitted that the rejections of claims 26, 33-36, and 39-49 are made in error and should be reversed and the claims allowed.

(viii) Claims Appendix

26. A manually operated liquid dispenser comprising:

a pump chamber having an interior volume and a cylindrical wall surrounding the interior volume, the pump chamber cylindrical wall having a center axis;

a dispenser housing having an interior volume containing the pump chamber cylindrical wall, the dispenser housing having a top wall and a pair of side walls that surround the pump chamber cylindrical wall with the entire pump chamber cylindrical wall being spaced inwardly and separated from each of the dispenser housing top wall and side walls;

a pump plunger mounted to the dispenser housing for axially reciprocating movement of the pump plunger relative to the pump chamber, the pump plunger having a liquid discharge passage that communicates with the pump chamber interior volume.

33. The dispenser of Claim 26, further comprising:

the pump plunger having a center tube with the liquid discharge passage extending through the center tube; and,

a flexible, resilient bulb connecting the center tube to the pump chamber cylindrical wall and enclosing the interior volume of the pump chamber.

34. The dispenser of Claim 33, further comprising:

the pump plunger liquid discharge passage and the pump chamber cylindrical wall being coaxial.

35. The dispenser of Claim 33, further comprising:
a tubular input valve integrally formed with the bulb; and,
a tubular output valve integrally formed with the bulb.
36. A manually operated liquid dispenser comprising:
a pump chamber having an interior volume and a cylindrical wall
surrounding the interior volume, the pump chamber cylindrical wall having a center axis;
a dispenser housing having walls surrounding an interior volume
containing the pump chamber;
a pump plunger mounted to the dispenser housing for axially reciprocating
movement of the pump plunger relative to the pump chamber, the pump plunger having
a center tube with a liquid discharge passage extending through the center tube and
communicating with the interior volume of the pump chamber, and the pump plunger
having a top wall and a pair of side walls that surround the center tube with the entire
center tube being spaced inwardly and separated from each of the pump plunger top
wall and side walls.
39. The dispenser of Claim 36, further comprising:
a flexible, resilient bulb connecting the center tube to the pump chamber
cylindrical wall and enclosing the interior volume of the pump chamber.
40. The dispenser of Claim 39, further comprising:
a tubular input valve integrally formed with the bulb; and,

a tubular output valve integrally formed with the bulb.

41. The dispenser of Claim 40, further comprising:
the pump plunger liquid discharge passage, the tubular input valve, the tubular output valve, and the pump chamber cylindrical wall all being coaxial.

42. The dispenser of Claim 41, further comprising:
a liquid discharge orifice communicating with the liquid discharge passage, the liquid discharge orifice being coaxial with the liquid discharge passage.

43. A manually operated liquid dispenser comprising:
a pump chamber having an interior volume and a cylindrical wall surrounding the interior volume, the pump chamber cylindrical wall having a center axis;
a dispenser housing having walls surrounding an interior volume containing the pump chamber;
a pump plunger mounted to the dispenser housing for axially reciprocating movement of the pump plunger relative to the pump chamber, the pump plunger having a liquid discharge passage that communicates with the pump chamber interior volume;
and,
a flexible, resilient bulb connecting the pump plunger to the pump chamber cylindrical wall and enclosing the pump chamber interior volume, the bulb having an integral tubular output valve and an integral tubular input valve.

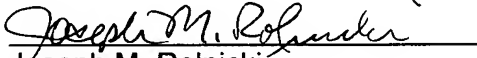
44. The dispenser of Claim 43, further comprising:
the pump chamber cylindrical wall having an input port; and,
the bulb tubular input valve overlaying the input port.
45. The dispenser of Claim 44, further comprising:
the pump plunger having a center tube with the liquid discharge passage
extending through the center tube; and,
the bulb tubular output valve engaging around the pump plunger center
tube.
46. The dispenser of Claim 44, further comprising:
the pump plunger having a liquid discharge orifice communicating with the
liquid discharge passage, and the liquid discharge orifice and the pump chamber
cylindrical wall being coaxial.
47. The dispenser of Claim 43, further comprising:
the bulb having an integral vent valve.
48. The dispenser of Claim 43, further comprising:
the dispenser housing having a vent port; and,
the bulb having an integral vent valve that engages over the vent port.
49. The dispenser of Claim 43, further comprising:

the dispenser housing having a top wall and a pair of side walls that surround the pump chamber and the bulb; and,

the pump plunger having a top wall and a pair of side walls that surround the bulb.

Respectfully submitted,

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